Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An optical inclinometer, comprising

- a radiation source for generating radiation;

- a medium having an inclination-sensitive surface and having an optical interface which is inclination-dependent;

- a detector for recording and converting an image into signals; and

- an evaluation unit for determining an inclination;

wherein the radiation source and the detector are arranged so that ~~the~~ a wavefront of the radiation is focused indirectly or directly, in reflection and/or transmission, onto the detector by at least a part of the medium;

wherein the detector has a wavefront sensor or the detector is ~~a~~ the wavefront sensor.

2. (Previously Presented) The optical inclinometer according to Claim 1, wherein the medium is a liquid.

3. (Previously Presented) The optical inclinometer according to Claim 1, wherein the radiation source, the medium and the detector are arranged so that the radiation is fed substantially perpendicularly to at least one surface of the medium during a passage through the medium.

4. (Previously Presented) The optical inclinometer according to Claim 1, wherein the detector has at least one diffractive element which is arranged on an array of microlenses.

5. (Previously Presented) The optical inclinometer according to Claim 1, wherein the detector is a Shack-Hartmann wavefront sensor or has a Shack-Hartmann wavefront sensor.

6. (Previously Presented) The optical inclinometer according to Claim 1, wherein the detector is mounted indirectly or directly on a container containing the medium.

7. (Previously Presented) The optical inclinometer according to Claim 1, wherein the detector has a detector surface which has two dimensions.

8. (Previously Presented) The optical inclinometer according to Claim 1, wherein the radiation source and the detector are arranged on a common base.

9. (Previously Presented) The optical inclinometer according to Claim 8, wherein the radiation source and the detector are arranged so that the radiation generated is emitted perpendicularly to a surface of the base and a receiving direction of the detector is oriented perpendicularly to the surface of the base.

10. (Previously Presented) The optical inclinometer according to Claim 1, wherein at least one deflection element is arranged in a beam path from the radiation source to the detector.

11. (Previously Presented) The optical inclinometer according to Claim 1, wherein at least one diffractive and/or optical-gradient element is arranged in a beam path from the radiation source to the detector.

12. (Previously Presented) A geodetic device comprising an inclinometer according to Claim 1.

13. (Currently Amended) A method for measuring an inclination of a device that includes a radiation source for generating radiation; a medium having an inclination-sensitive surface and having an optical interface which is inclination-dependent; a detector for recording and converting an image into signals; and an evaluation unit for determining an

inclination, wherein the radiation source and the detector are arranged so that ~~the~~a wavefront of the radiation is focused indirectly or directly, in reflection and/or transmission, onto the detector by at least a part of the medium,

the method comprising the steps of:

- focusing of the wavefront of the radiation onto the detector;

- recording of the signals of the detector; and

- evaluating of the signals and determining of the inclination of the device;

wherein during the evaluating of the signals, information about the wavefront of the radiation is derived.

14. (Currently Amended) The method according to Claim 13, wherein, during the evaluating of the signals, an analysis of the deviation of the wavefront of the radiation from the wavefront before an interaction with the medium is effected.

15. (Currently Amended) The method according to Claim 13, wherein, during the recording of the signals and/or during the evaluating of the signals, a reconstruction of the wavefront of the radiation before an interaction of the medium is effected.

16. (Previously Presented) The method according to Claim 13, wherein, during the recording of the signals and/or during the evaluating of the signals, individual image points of the detector are selected.

17. (Previously Presented) The method according to Claim 13, wherein, during the evaluating of the signals, the form function is derived by a polynomial approach.

18. (Previously Presented) The method according to Claim 13, wherein, during the recording of the signals and/or during the evaluating of the signals, different apertures are correlated with one another.

19. (Previously Presented) The method according to Claim 13 being used for compensating vibrations and/or random fluctuations of at least one surface of the medium.

20. (Previously Presented) A wavefront sensor for use in an optical inclinometer according to Claim 1, comprising:

a camera for recording and converting the image into the signals; and

an array of microlenses,

wherein that at least one diffractive element is coordinated with the array of microlenses.

21. (Previously Presented) The wavefront sensor according to Claim 20, wherein the diffractive element is a hologram or a grating.

22. (Previously Presented) The optical inclinometer according to Claim 1, wherein the radiation source is a semiconductor laser or an LED.

23. (Previously Presented) The optical inclinometer according to Claim 1, wherein the detector has a CMOS microcamera or CCD microcamera.

24. (Previously Presented) The optical inclinometer according to Claim 7, wherein the orientation of the detector surface is parallel to a surface of the medium.

25. (Previously Presented) The optical inclinometer according to Claim 8, wherein the common base is a circuit board.

26. (Previously Presented) The optical inclinometer according to Claim 11, wherein the at least one diffractive and/or optical-gradient element is a Fresnel lens.

27. (Previously Presented) The optical inclinometer according to Claim 12, wherein the geodetic device is a telemeter or a plumb staff.

28. (Previously Presented) The method according to Claim 13, for measuring the inclination of a device, wherein the device is a geodetic device.

29. (Previously Presented) The method according to Claim 13, wherein the radiation source is a semiconductor laser or an LED.

30. (Currently Amended) The method according to Claim 13, wherein the information about the wavefront of the radiation is a form function of the of the radiation.~~wavefront.~~

31. (Previously Presented) The method according to Claim 13, wherein the detector has a CMOS microcamera or a CCD microcamera.

32. (Previously Presented) The method according to Claim 16, wherein only the individual image points are used for determining the inclination of the device.

33. (Previously Presented) The method according to Claim 17, wherein the polynomial approach uses Zernike polynomials.

35. (Previously Presented) The wavefront sensor according to Claim 20, wherein the camera includes a CMOS microcamera or a CCD microcamera.

36. (Previously Presented) The wavefront sensor according to Claim 21, wherein the diffractive element is a Dammann grating.